



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,276	10/17/2001	Kave Eshghi	10015123-1	6378

7590 07/05/2006

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

HAMZA, FARUK

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Response to Amendment

1. This action is responsive to the amendment filed on May 08, 2006. Claims 1,3,5-9 and 11-14 have been amended. Claims 1-16 are now pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,8-9 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shachor (U.S. Patent Number 6,947,992) hereinafter referred as Shachor, and further in view of Sampson et al. (U.S. Patent Number 6,490,624) hereinafter referred as Sampson.

Shachor teaches the invention substantially as claimed including a method for controlling communications between a client and a cluster of servers includes conducting a first communication session over a network between the client and the selected server (See abstract).

As to claim 1, Shachor teaches a data service system, comprising:

a plurality of web servers, each servicing any request received by the data service System (Column 6, lines 4-36, Shachor discloses plurality of web servers);

a plurality of application servers, each processing any request directed from any one of the web servers (Column 6, lines 4-36, Shachor discloses plurality of application servers); and

a session state information managing system called by each of the application servers to allow different application servers to process requests belonging to a single session without requiring the requests to carry entire session state information (Column 7, lines 7-Column 8, lines 51, Shachor discloses session state information managing system).

Shachor does not explicitly teach the claimed limitation of session state information managing system stores and distributes session state information without servers storing session state information.

However, Sampson teaches claimed limitation of session state information managing system stores and distributes session state information without servers storing session state information (Column 9, lines 4-59, Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by adding mechanism for maintain a session information managing system separate from application and web servers, which will make session management system independent from other servers and

reduce servers' load. One would be motivated to do so to enhance the system's performance.

As to claim 2, Shachor teaches the data service system of claim 1, wherein the session state information managing system further comprises a session state information manager called by any one of the application servers when that application server processes a request of a session to (1) provide the session state information of the request to the application server and (2) generate a state reference for a new session state information for that request after the application server has processed the request and generated the new session state information for that request (Column 7, lines 7-Column 8, lines 51); a store that stores all session state information received by the session state information manager (Column 7, lines 7-Column 8, lines 51).

As to claim 3, Shachor teaches the data service system of claim 2, wherein the state reference generated is unique to the corresponding session state information and is a fixed length character string (Column 6, lines 37-56).

As to claim 8, Shachor teaches a session state information managing system in a data service system having a plurality of duplicate application servers, each for processing requests, comprising:

a session state information manager called by any one of the application servers when that application server processes a request of a session to (1) provide the session state information of the request to the application server and (2) generate a state reference for a new session state information for that request after the application server has processed the request and generated the new session state information for that request (Column 7, lines 7-Column 8, lines 51);

Shachor does not explicitly teach the claimed limitation of session state information managing system stores and distributes session state information without servers storing session state information.

However, Sampson teaches claimed limitation of session state information managing system stores and distributes session state information without servers storing session state information (Column 9, lines 4-59, Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by adding mechanism for maintain a session information managing system separate from application and web servers, which will make session management system independent from other servers and reduce servers' load. One would be motivated to do so to enhance the system's performance.

As to claim 9, Shachor teaches the session state information managing system of claim 8, wherein the state reference generated is unique to the

corresponding session state information and is fixed length character string
(Column 6, lines 37-56).

As to claim 14, Shachor teaches a method of allowing different application servers in a data service system to process requests belonging to a single session, comprising

(A) determining if a request starts a session (Column 7, lines 7-Column 8, lines 51);

if the request initiates the session, then

(B1) processing the request in one of the application servers and sending session state information of the request to a session state information manager (Column 7, lines 7-Column 8, lines 51, Shachor discloses processing the request in one of the application servers);

(B2) receiving a state reference unique to the session state information from the session state information manager and attaching the state reference to the response to the request (Column 7, lines 7-Column 8, lines 51, Shachor discloses receiving state reference unique to the session state information);

if the request does not start the session, then

(C1) retrieving the session state information associated with the request from the session state information manager using a state reference contained in the request (Column 7, lines 7-Column 8, lines 51, Shachor discloses retrieving the session state information);

(C2) processing the request with the retrieved session state information in one of the application servers and generating a new session state information (Column 7, lines 7-Column 8, lines 51, Shachor discloses processing request with the retrieved session state information);

(C3) sending the new session state information of the request to the session state information manager to receive a new state reference unique to the new session state information and attaching the state reference to the response to the request (Column 7, lines 7-Column 8, lines 51, Shachor discloses sending new session state information).

Shachor does not explicitly teach the claimed limitation of session state information managing system stores and distributes session state information without servers storing session state information.

However, Sampson teaches claimed limitation of session state information managing system stores and distributes session state information without servers storing session state information (Column 9, lines 4-59, Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by adding mechanism for maintain a session information managing system separate from application and web servers, which will make session management system independent from other servers and reduce servers' load. One would be motivated to do so to enhance the system's performance.

As to claim 15, Shachor teaches the method of claim 14, wherein the step (C1) further comprises the steps of
verifying the session state information retrieved (Column 7, lines 7-Column 8, lines 51);
if the session state information is not verifiable, then performing the step (B 1) (Column 7, lines 7-Column 8, lines 51);
if the session state information is verified, then performing the step (C2) (Column 7, lines 7-Column 8, lines 51).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4-7, 10-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shachor and Simpson as applied above, and further in view of Jindal et al. (U.S. Patent Number 6,405,264) hereinafter referred as Jindal.

As to claim 4, 10 and 16 Shachor teaches the data service system of claims 3, 9 and 14 respectively, wherein the session state information manager generates the state reference (Column 6, lines 37-Column 8, lines 51).

Shachor does not explicitly teach the claimed limitation of using marshaling, cryptographic and encoding algorithm.

However, Jindal teaches marshaling, cryptographic and encoding algorithm (Column 6, lines 14-34; Column 7, lines 43-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by adding marshaling, cryptographic and encoding algorithm, which secure the communication. One would be motivated to do so to enhance the security in communications and protect privacy.

As to claim 5 and 11, Shachor teaches the data service system of claim 4 and 10 respectively (Column 6, lines 37-Column 8, lines 51).

Shachor does not explicitly teach the claimed limitation of marshaling and un-marshal.

However Jindal teaches marshaling and un-marshaling (Column 6, lines 14-34).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by adding marshaling, cryptographic and encoding algorithm, which formats parameters for transmission. One would be motivated to do so to enhance system's communications.

As to claim 6 and 12 Shachor teaches the data service system of claim 4 and 10 respectively (Column 6, lines 37-Column 8, lines 51).

Shachor does not explicitly teach the claimed limitation of cryptographic algorithm.

However, Jindal teaches cryptographic algorithm (Column 7, lines 43-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by cryptographic algorithm, which secure the communication. One would be motivated to do so to enhance the security in communications and protect privacy.

As to claim 7 and 13, Shachor teaches the data service system of claim 4 and 10 respectively (Column 6, lines 37-Column 8, lines 51).

Shachor does not explicitly teach the claimed limitation of encoding algorithm.

However, Jindal teaches encoding algorithm (Column 6, lines 44-51).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Shachor by adding encoding algorithm, which secure the communication. One would be motivated to do so to enhance the security in communications and protect privacy.

4. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from

Art Unit: 2155

the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching of all or part of the claimed invention, as well as the context.

Response to Arguments

5. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- Nozaki et al. (U.S. Patent Number 6,128,644) discloses load distribution system for distributing load among plurality of servers.
- Saigo et al. (U.S. Patent Number 6,587,880) discloses Session management system and method.
- Chlan et al. (U.S. Patent Number 6,385,642) discloses Internet web server cache storage and session management.
- Buckingham et al. (U.S. Patent Number 6,961,776) discloses architecture for multiple channel access to applications.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faruk Hamza whose telephone number is 571-272-7969. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached at 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more

Art Unit: 2155

information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll -free).

Faruk Hamza

Patent Examiner

Group Art Unite 2155



SALEH NAJJAR
SUPERVISORY PATENT EXAMINER